

The Flivver Flash

The Official Newsletter of the Space City T's - Houston, TX

Repairing the Model T DriveShaft

by Doug Brough

Several years ago I inherited (sort of) another Model T. This was my grandfather's Model T and play toy in his retirement years and actually the car in which my brother and I learned how to drive a Model T.

It has a Ruckstell axle which keeps popping into neutral from high gear, and I could sense this car had some considerable mechanical wear. So I've been working on repairing (rebuilding??) the axle. I hope to document it all, but that's for another day (way down the road – still working on repairs).

For this article, I'll document what I've done with the driveshaft. My intended audience is the "newbie", so some (much?) of this will be common knowledge to many of you.

IN PERSON September 8th meeting cancelled!

Website: www.spacecityts.org

Email: ModelT@spacecityts.org

Step 1. Remove the driveshaft from the car. That's a BIG step 1 and for purposes of brevity here, we will assume that's been done.

Step 2. Check end/play, then remove the Universal Joint. Before removing the U-Joint, I pulled the pinion gear in and out to see what kind of end (side-to-side) play I had. Too much. So we will be replacing the bushing later!

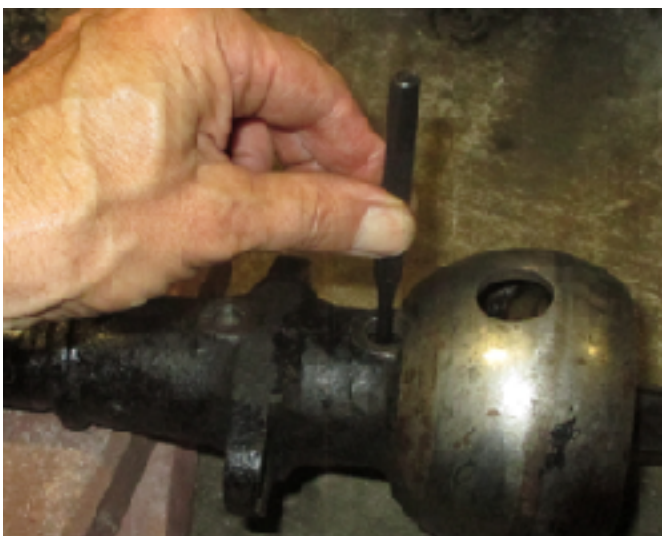
If you examine the bell housing, you will see 2 nuts, 180 degrees from each other. Remove both nuts. The U-Joint is held in by a pin that just needs to be punched out. For this car, one end of the pin was mushroomed, so we want to find the non-mushroomed end and put our punch against that.

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From the pictures, we put the punch on the pin, as seen in the top photo.



With punch in hand, we just tap out the pin, and it easily falls out the other side. You just slip the U-Joint off and you can now slip the driveshaft housing off the driveshaft.



Step 3 – Loosen the pinion nut



Now it's time to remove the gear holding the pinion. Although the photo doesn't show it, you obviously need a wrench or large socket on the nut. What I'm trying to show is that you do need some way to secure the shaft so it won't turn while you are trying to do this. A vise would work. Putting a large crescent wrench on the U-Joint side gave me enough leverage. Although the photo on the next page shows a gear puller, you don't need that quite yet

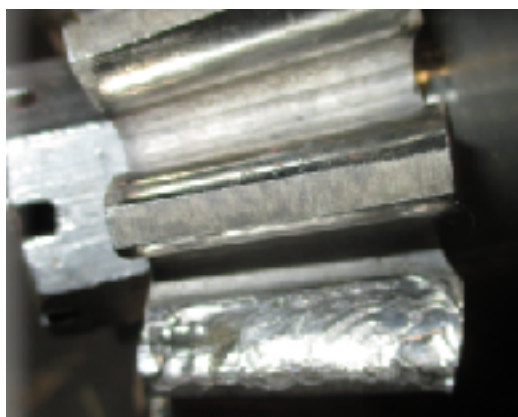
Half the battle in these repairs is how do I do it when I don't have a large shop to work in. It teaches one to be a bit creative! Now, just loosen, but do not remove the nut.

Step 4 – Remove the pinion gear. Again, you want the nut still on the shaft, as you don't want a projectile, nor do you want to damage the end of the driveshaft. I put a fair amount of pressure on the gear puller

and decided to add a little heat as the next step rather than more force.

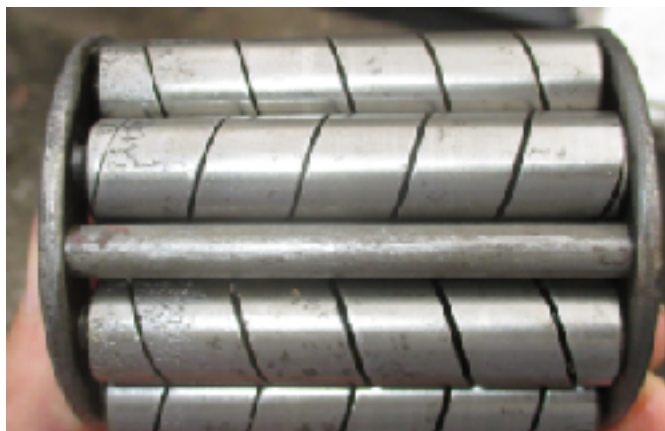


Ye-ole “coefficient of expansion” worked, and the gear dislodged with a pop. You can see WHY I needed to remove (and eventually replace) the pinion gear.



Step 5 – Inspect. Next we have a look at everything. No cracks or big grooves in the sleeve – good! I took a micrometer to it and found about 0.003” difference between the highest and lowest points. Good enough for me. As for the roller bearing, it does have some pitting but otherwise is sound. The thrust ball-bearing and washers also showed no cracks or pitting, so I decided to just keep them. FYI, you can’t remove them unless you remove the sleeve.

I also took the micrometer to the roller bearing. It showed some wear (1 - 4 thousandths – the rollers don’t wear evenly, which I understand is expected). One of the big debates, is new better? There is a lot of chat about the replacement versions of this particular part not being as sturdy as the original. I’m just going to reuse the original.



Step 6 – Re-install the pinion gear, or in my case, install a new pinion gear. You will need to clamp the shaft in a vise and tighten to at least 70 foot pounds. You'll need the gear properly installed (not just hand-tight) so that you can accurately fit the new bushing. Make sure the cotter pin holes line up, and if not, go tighter, not looser to align them.

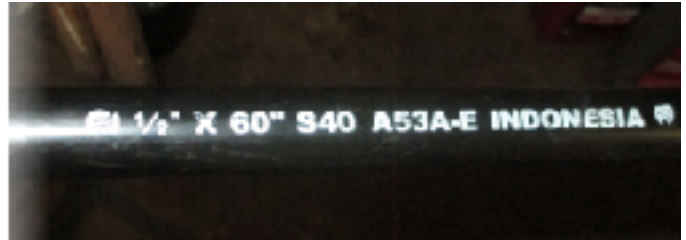


Note how to install the cotter pin.



Step 7. Replace the U-Joint bushing. You will need special tools for this, or a trip to your favorite hardware store to pick up some plumbing pipe.

I got the plumbing pipe idea from <https://modeltfordfix.com/rebuilding-the-drive-shaft/>. The one difference, I used a ½" to ¼" reducer on the end. They used an end cap. Purchase a ~5 foot length of steel pipe. I used ½ inch pipe.



Here's my ½" to ¼" reducer. You still need to grind 4 sides so you can shove this past the driveshaft rivets.



Insert your "tool" into the driveshaft housing. You will have to twist it a bit until you can clear the rivets. Once you have cleared them, the top part of the reducer will fit comfortably inside the bushing. Note, I have the reducer on one end of my pipe and an end cap on the other side.



Now grab the housing and tool, lift up and force down to the hard cement a few times. The bushing will dislodge. I like to lift the housing AND tool together, so the tool doesn't accidentally shift, and you end up shearing off rivets!



We'll also use a short section of steel pipe to drive the new bushing in. I used a $\frac{3}{4}$ " cap to sit on the bushing, and a $\frac{1}{2}$ " piece of pipe (with end caps installed) to tap on the $\frac{3}{4}$ " cap. Drive in the new bushing.



After the bushing is installed, now try to put the U-Joint back on. This time, tap on the mushroomed end. Uh-oh, the holes don't line up for the pin that holds the u-joint to the shaft. Yep, a common problem. Solution – you need to ream (or file) off some of the "lip" of the bushing. I learned this is called "facing". I ended up having to file off over 10 thousandths so it was a LOT of "file, install, try pin, remove bushing, repeat". Repeat until pin installs and you can turn the U-Joint by hand.



Learning #1 – the pin for the U-Joint fits in much better one way than the other.

Learning #2 – There is a grease cup over the bushing to allow grease inside the bushing. You will need to drill a hole and line that up with the grease cup. I found it easier to drill the hole with the bushing OUT of the housing, after all filing/reaming was done. It wasn't that hard to line up with the hole in the housing.

Learning #3 – Repositioning the U-Joint holes seemed to make a difference in play/tolerance. I would have thought the holes in the shaft were perfectly symmetrical and maybe they were. As I say, it seemed as if the U-Joint was tight, but I rotated it 180 degrees, it had a better fit. Note, I'm talking about the SAME hole on the U-Joint,

but trying both sides of the hole on the shaft.

Learning #4. Make sure the spool is installed when you're doing all this. It will keep the washer lined up. I ruined a bushing as I kept filing and filing until it fit, then realized the thrust washers weren't lined up as I was doing this (didn't have the spool on). Result, I ended up



with less end-play than with the original Babbitt washer, but still way more play than I should have had.

Step 8 Double check your work. Can you turn the driveshaft by hand? Some resistance would be ok. If you can't turn by hand, it's too tight. Try to move the pinion gear in and out of the drive shaft. Hopefully, any movement is minimal (say under .0005"), as we don't want this "floating" over the ring gear. If there is a lot of movement, you've removed too much from the new bushing.

So that's what I just recently went through fixing my driveshaft. Of course, while all apart, certainly clean out the old 90+ year old grease and clean up the outside and re-paint to your desire. May this be helpful to the next person that has to tackle this!

Small World!

by Bruce Carter

As some members know, I have a couple RV pads back in my hometown of Granville, Tennessee (Rye Street RV Park). An annual Heritage Day celebration is held the Saturday before Memorial Day and consists of homecoming events, Blue Grass music, craft exhibits, various talent shows, display of the town's historic stores, shops and museums, and one of the largest AACA car shows in the state of Tennessee.

The President of one of the local area car clubs (Lebanon, Tennessee) stayed in my RV Park and happens to be a Model T owner, as well. While setting up his RV, we were discussing our favorite camp sites and hobbies, which for him was visiting Silverton, Colorado. During the discussion, he mentioned that while in Silverton, he met an older gentleman and his wife who had a Model T Snowmobile. I told him that was an interesting story because we had a gentleman who had moved to Houston from Silverton, joined our local Model T club, and who had told me stories about his Model T Snowmobile. As it turns out, he is the one and the same Mr. Carey Green!

I tried to contact Mr. Green during that weekend while we were all together, but I got a return error to the email I had sent to him, and I didn't get a return from the voicemail that I left at the local number we had in our roster. Once we started having our club meetings in person again, I had hoped he would join us. In later

discussions, Dave Lucas (our club President who had been compiling an updated roster of members) indicated that he thought Mr. Green had moved back to Silverton.

Glenn Edwards and his wife indicated that they would love to stay in touch with him, if possible. They enjoyed meeting him in Silverton during their visits, and he made a lasting impression upon them that will be long remembered. Below is a photo that Glenn recently shared of Mr. Green driving his Depot Hack in Silverton's 4th of July parade in 2015!



As time slipped through the summer months, I had neglected to follow up with trying to contact him. Much to my surprise, one evening in early August, while burning brush piles on our farm in Tennessee, I received a phone call from Kathy Green, Carey's daughter, who I had tried to call back in May. She had heard my voicemail in a backlog of phone messages that she was clearing. She advised me that Mr. Carey was doing well and had been visiting between family members in Silverton, Houston and New York since we last met.

He currently is visiting in New York State, with his other daughter. He misses his cars, and the family is making arrangements to maybe move one from Colorado to New York so he can tinker with it. Mr. Carey continues his memberships in the Model T Ford Club of America and our local Space City T's car club. Here is a recent picture of Mr. Carey from his New York location that Kathy later provided.



Upcoming Events



Texas T Party 2021
September 29 - October 2
Temple, Texas

[TOUR INFORMATION - URL](#)

Texian Market Days

October 22 & 23, 2021
 at the George Ranch Historical Park



✓ Cowboys ✓ History
 ✓ Cannons ✓ Fun!

The Fort Bend History Association is proud to present the 37th annual Texian Market Days festival, held at the George Ranch Historical Park. Bring the whole family to discover more than 150 years of Texas history! Enjoy hands-on activities, battle re-enactments, live entertainment, first-person costumed interpreters, historic home tours, games, cowboys, vintage vehicles, food, craft vendors and more. Texian Market Days is our biggest living history event of the year — you don't want to miss it!

Adults: \$20 | Seniors & Children ages 4-12: \$15

For volunteer opportunities, please contact Sarah DeArmond at sdearmond@georgeranch.org

[Texian Market Days October 22 & 23](#)

We would like to see if the Space City T's of Houston club would be interested in coming out for the George Ranch Historical Park for **Texian Market Days on October 22 & 23**. It would be parking in front of the George House on Pecan Lane, with lunch included. Multiple cars would be on display. This is a large event and we'll have re-enactors and Army vehicles. Its quite a spectacular event throughout the whole park. Let me know if you have any other questions!

Susan Vanderford,
svanderford@georgeranch.org

Director of Programs

George Ranch Historical Park

Phone: (281) 343-0218 x278

Physical Address: 10215 FM 762 Richmond, TX 77469

Mailing Address: P.O. Box 1248 Richmond, TX 77406

<http://www.georgeranch.org/>

<https://www.georgeranch.org/programs-events/texian-market-days/>



I would like to invite the Space City T's to the Gulf Coast Region AACA Hot Dog and Ice Cream Social to be held September 18, 2021 in Tomball.

We are hosting this event to bring car people together for a day of hanging out in the park with other like minded people, regardless of make, model or year specifications.

Please feel free to distribute and post the attached flier as you see fit. If you have any questions, please feel free to contact me.

Ashley Griffin 979-525-3459

APRIL SOUND 4TH ANNUAL SHOW & SHINE

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APRIL SOUND COUNTRY CLUB
1000 APRIL SOUND BLVD. MONTGOMERY, TX

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10 AM TIL 2 PM

EARLY ARRIVAL - 9 AM

NO REFUNDS - RAIN OR SHINE

RAIN OUT DATE OCTOBER 30, 2021

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BEST OF SHOW TRUCK, "MANDY'S CHOICE"
APRIL SOUND COUNTRY CLUB CHOICE

TO REGISTER FOR THIS EVENT GO TO WWW.TEXASTEAMFOUNDATION.ORG

FOR MORE INFORMATION CONTACT TOM CUNNINGHAM AT 281.827.7999 OR TFC1@CONSOLIDATED.NET

The Flivver Flash is published by the Space City T's chapter of the Model T Ford Club of America in Houston, Texas twelve times per year. This newsletter is produced for the education and enjoyment of members and those expressing interest in joining the Space City T's. Said education and enjoyment is as it pertains to the Model T Ford automobile. The Flash is also shared with other antique auto clubs. Other clubs may use articles from this publication with credit to this newsletter or the original source. News, articles, ads or anything of interest to the club must be submitted to the editor by the 20th of the month preceding the month of publication. Emailing takes place the last week of the month. Annual dues are \$25 per year.

2021 Space City Club Officers and Board Members

President	Dave Lucas	281-388-0761
Vice President	David Carter	713-875-1049
Secretary	Bruce Carter	713-703-2958
Treasurer	Jerry Smith	281-461-9906
Board Member	Nancy Carter	713-412-0880
Board Member	Bobby Wright	409-771-5548
Board Member	Anthony J. Marino	281-482-4156

THE FLIVVER FLASH

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302 Torrey Court
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email: modelt@spacecityts.org

2022 Officer Nominations

Please communicate your 2022 club officer nominations to Dave Lucas at [\(713\) 299-3059](tel:7132993059) or daverlucas@yahoo.com.

New Members Wanted

Please visit our [Space City T's of Houston Texas web site](#). If interested in becoming a member, please provide your name, address, mobile phone, & email, and make a \$25 check payable to **Space City T's**.

Please mail your information and check to the Treasurer at:

Jerry Smith
13723 Llano Lake Court
Houston, TX 77059

A special "Thank You" to all club members who paid their 2021 dues!

The Space City T's Club is the Houston, Texas chapter of the Model T Ford Club of America. All questions concerning membership, The Vintage Ford magazine, the MTFCA library, chapter insurance, purchase of manuals, back magazine issues, or store items can be directed to the following:

Model T Ford Club of America

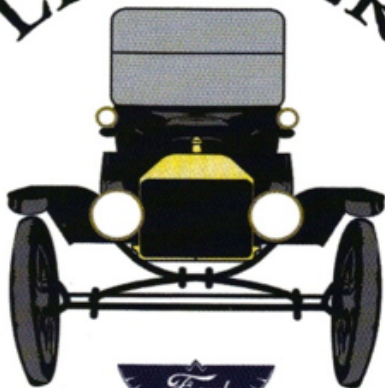
309 N. 8th Street, PO BOX 996
Richmond, IN 47375-0996
Phone: 765-855-5248

Email: rachel@mtfca.com

\$40 annual dues includes six issues of the Vintage Ford

Join MTFCA at: www.mtfca.com

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281-482-4156 home,
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FLIVVER FLASH INPUTS NEEDED

Do you have something to share? A barn find, funny or not so funny Model T stories? Tour photos, or articles about Model T's? Your Model T acquisition stories, restoration photos or swap meet finds? A special interest article?

Please email ads, articles, photos, stories, etc. etc. to: topkick7@outlook.com

Next In-Person Meeting Cancelled

September 8, 2021



**Dine with Friends at
Demeris BBQ at 6:00 P.M.**

**located at
1702 West Loop North,
Suite A, Houston, TX 77008**

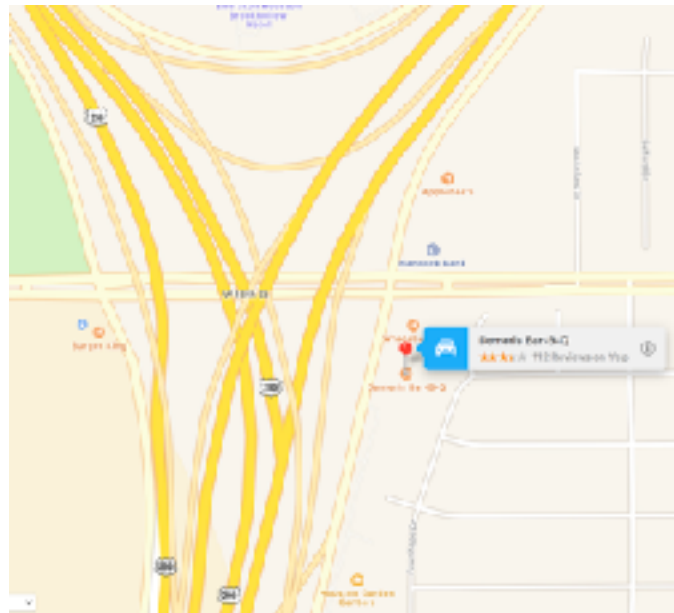
**Then attend the
Space City T's Meeting at 7:30 P.M.**

Place:

**Lazy Brook Baptist Church
—1822 West 18th Street in the
Heights**

Website: www.spacecityts.org

Email: modelt@spacecityts.org



Directions to Demeris BBQ

From the east or west on I-10 or the south side of downtown, take the I-610 West Loop North and get off at the 18th Street Exit. Demeris BBQ will be immediately on the right after Houston Garden Nursery.

From the west on Highway 290, exit at Mangum and turn right to 18th Street. At 18th, turn left, cross under West Loop and turn into the Whataburger parking lot on the right. Proceed to Demeris BBQ after the Whataburger.

From the north on I-45, take the 610 North Loop West around to the I-610 West Loop South to the Hempstead Highway exit. Make a U-turn under I-610 and proceed north on the frontage road to just before 18th Street, Demeris BBQ will be on your right after Houston Garden Center.



First Class Mail



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League City, Texas 77573

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